

**RIPLEY URBAN DISTRICT COUNCIL.**



**DR. EDWARD GAYLOR'S**

**THIRTIETH**

# **ANNUAL REPORT**

*As Medical Officer of Health,*


**From January 1st to December 31st, 1903,**

**TO WHICH IS ADDED THE**

**REPORT OF INSPECTOR THOMPSON.**

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# TO THE RIPLEY URBAN DISTRICT COUNCIL.

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GENTLEMEN,

I now submit to you my Thirtieth Annual Report, dealing with the vital statistics of your district, and though this report shows an *increased* mortality of the district compared with 1902, yet there is nothing in that fact to discredit in any way the sanitary condition of the district in 1903.

If we take the average of the last ten years, we find it works out at a death rate of 14·57 per 1000, which is very satisfactory. The rate for England and Wales is 15·4 per 1000.

It has been said there is nothing very romantic in the report of a medical officer of health, but, in the absence of romance, there is a very great deal that is vital in character, and which ought to be of the most intense interest to all thinking people. Lord Beaconsfield once said "that the health of the people is really the foundation upon which all their happiness and all their power as a nation depend. The health of the people is, therefore, in my opinion, the first duty of a statesman."

It will be seen that we have had six deaths from zymotic or infectious diseases during 1903, as against four in 1902; and with all our efforts to cope with this class of disease we shall not at present succeed in quite blotting them out. I am quite sure we are successfully battling with them, because they get less in number and severity.

Out of the 33 cases of Scarlet Fever and Diphtheria notified during 1903 we had three deaths, which will be noticed in their proper places.

There is one thing in sanitation which distinguishes it from some other sciences, and it is, that there is no finality about it. Without constant and repeated visits and supervision, the district in many parts would be just as bad as it was twenty years ago. That is why I always say "perfect sanitation" can only be dreamed about, but it is no reason why we should relax our efforts to teach the ignorant tenants what is cleanly and decent, and enforce the unwilling landlord not to herd his human family in worse surroundings than animals in the open field.



Since the year 1895 the following notifications have been received under the Notification of Infectious Diseases Act, which your Council adopted in 1892, but which is now a compulsory act throughout the country .—

1895	-	-	-	47
1896	-	-	-	37
1897	-	-	-	81
1898	-	-	-	79
1899	-	-	-	48
1900	-	-	-	107
1901	-	-	-	46
1902	-	-	-	50
1903	-	-	-	49

In 1895 we had Small-Pox epidemic, in 1897 and 1898 Scarlet Fever epidemic, and in 1900 Scarlet Fever epidemic returned, and in this year 1903 we had six cases of Small-Pox notified, so we were very near an epidemic of that loathsome disease.

#### SMALL-POX.

The Small-Pox epidemic in 1895 gave a great impetus to vaccination and re-vaccination. All those who know anything about it know there was a panic in the district, and this year's visitation of Small-Pox was only prevented assuming an epidemic form by the former vaccinations, and the prompt and energetic measures which were at once taken by myself and Inspector Thompson. I don't make these remarks for the sake of converting the anti-vacs., because they are beyond such a process. They generally suddenly change from one point to another without any thought, because they are like travellers on a trackless waste with no roadmarks, and they have no geography of their own. It has often been said the best propagandists are faddists and the worst are the real scientists. The faddist thinks he knows everything, and the educated scientist mourns his own ignorance.

In France vaccination is compulsory. Vaccination in infancy, and again in the eleventh year, and again in the twenty-first year. Everybody when at the age of 22 years must produce a vaccination certificate, even foreigners who take up their residence there must do this, or else submit to the operation.

In 1901-2 9659 cases of Small-Pox were admitted to the London hospitals, and 6,945 of these had been vaccinated at some time or other of their lives. The mortality from Small-Pox was 7.34 per cent. There were also admitted 2278 persons who never had been vaccinated, and the mortality among these was 33.06 per cent.

The efficacy of vaccination as a preventive of Small-Pox has been proved up to the hilt. Even the so-called evil results of vaccination (if proved) are infinitesimal compared with the protective power of vaccination; and I have always considered the "conscientious objector"

a very foolish creature. Besides the very uncertain mode of dealing with it, some magistrates despise it altogether, and others are very lax in the administration of it. I have no means of knowing how many children have been vaccinated during 1903, or how many have been re-vaccinated.

On the 27th of January I received a letter from Dr. Howarth, Medical Officer of Health, of Derby, informing me that a little boy, named Harry Jones, 8 years of age, slept at Walker's Lodging-house on the 18th of January, and since his admission to Derby Workhouse was found to be suffering from Small-Pox. On the next day I had a letter from the Master of Derby Workhouse informing me of the same thing. The only conclusion I could arrive at was that he had Small-Pox in him when he went to the Ripley Lodging-house. Action was taken, as the result of immediate inquiries, and it was found that the boy and his father, mother, and two sisters applied for admission to the lodging-house in question. The beds were full, the weather was windy and wet, and the ultimate result was that they were given shelter in the common kitchen for one night. It turned out that the boy slept with the woman (who acts as the deputy-keeper of the house) and her baby. The woman told me she took a liking to the lad, and thought she would let him sleep with her and her baby in her own bed, which she has in her own private room. I immediately ordered all the material, bed linen, and otherwise in this room to be subjected to boiling water, the room thoroughly disinfected, and the bed and mattresses burnt. Mr. Thompson carried all this out in a proper manner. Also I thought it advisable to clear out the two closets in the yard and the ash-pit, with the free use of lime about the premises. I then had to advise and talk about vaccination. I examined the woman, and found she had vaccine marks, done in childhood, but I could not persuade her to be re-vaccinated. The child spoken of as sleeping with its mother in the same bed as the infected boy was 9 months old, and I, after long arguments and persuasion, succeeded in inducing her to have the child vaccinated. Mr. Thompson used Izal freely about the place, and all was done which I could think of as preventive measures. Of course several days had elapsed since the boy slept at the house, but I had no doubt from the period of incubation, the boy had the germs of disease when he was at the lodging-house. The mother's argument against vaccination was, that the child had been well bathed and washed since (very good in itself); but I had to explain to her she had not washed the baby inside.

Another case of Small-Pox occurred at No. 31, Crossley-street, Ripley. The facts are these. The house is owned by Mr. Lee, and occupied by William Bridges, who works for Mr. Lawton. There are three children, so that the inmates of the house are five persons. The house and premises are fairly clean and satisfactory. A child, named Sampson Bridges, will be 3 years old on the 24th day of March, 1903.



On the 28th day of February the mother noticed the child was poorly, and after playing about that evening, the child was sick, and this sickness continued a day or two at intervals. On Sunday the mother obtained medicine from Dr. Hooper, but the child was not seen by him. The mother says the child seemed better, but on Thursday morning she noticed the child had a rash on the skin, and this seemed to develope and get more pronounced. Dr. Hooper was then called in, and saw the child for the first time, his suspicions were then aroused; and I saw the case with him on Friday morning, March 6th, and we had the child removed to the Small-Pox Hospital at once. The history I get was the mother of the child visits the lodging-house every day, but she declares she has not taken the child with her for more than a month. It will be remembered that on January 27th we disinfected a room, and burnt bedding, etc., in this lodging-house, where an infected boy slept one night. This case cannot be said to have any connection with that affair. The probability may be that some traveller has stayed in the lodging-house with an unrecognised state of Small-Pox, and the mother of this child has brought the disease home in her clothing, or some other material which came from the lodging-house. It appears that a short time ago this child was vaccinated by Dr. Boyle, but it was not successful and has not been done again. The husband, wife, and two children were all requested to be re-vaccinated, and consented; and it has been thought advisable that they should be kept in the house for the next ten days or so; and that a man should go once daily and fetch in the house what they require, of course at their own expense. But I thought with re-vaccination, and all of them being isolated for ten or twelve days, and we find an errand man for them, we should be doing all we can do to prevent the disease spreading. The bedding, etc., was burnt the same afternoon as the child was removed, the materials being removed in a cart well covered in germicidal powder, as a precaution of its removal through the street.

Another case is Mrs. Buxton, 32 years, deputy-keeper of what is known as Walker's Lodging-house, who was removed to the Belper Small-Pox Hospital on the 18th day of March. She occupied a room on the ground floor of this house, and she was the woman who refused to be re-vaccinated after a boy, 8 years of age, had occupied her bed with her and her child some fortnight previous, and the same boy went to Derby Small-Pox Hospital a few days afterwards. Of course I advised her to be re-vaccinated, but she refused on that occasion. I don't suppose that case had anything to do with her contracting Small-Pox, but re-vaccination would have saved her present attack, in all human probability. Every precaution was taken, and bedding, etc., destroyed by burning. Your Inspector, myself, and his assistant did everything by way of prevention. No history except that in a lodging-house there would have been some person in the first stage of the disease had a night's lodging there without it being prominent enough to be discovered. Sixteen adults and two children were inmates of the house



at the time of its occurrence ; and as these were all "contacts," it was thought best to keep them in quarantine for some twelve days before their distribution all over the neighbourhood.

The Council are already aware of the arrangements, and though it may appear costly, I know of no other means effectual enough to prevent the spread of this terrible disease. I have visited the place with your officer, and hope you will recognise the very great difficulty we have to deal with in these cases. Having no legal authority, all must be done by an easy persuasiveness, without these folks knowing why and wherefore. We have succeeded very well so far, but all my preaching efforts of re-vaccination were *nil*.

Another case is that of Mrs. Butler, of Mosley Street. I saw her, with Dr. Boyle, before Small-Pox was diagnosed. She was vaccinated in infancy—the case was mild and modified in consequence. She was removed to the hospital. Although she had the disease in the *mildest* form, it would not follow that other persons who may have caught the disease from her would be as fortunate. All the arrangements of a preventive character were carried out here, and the inmates of the house re-vaccinated. In these cases bedding and certain other things were destroyed by fire (the only positive germicide).

Another case was that of a man named Charles Pettitt, aged 45 years. He worked at some pipe-laying of the Waterworks of Ilkeston and Heanor, passing through the district. He took lodgings at the Workmen's Home on the 24th of February, and has been there ever since that date. On Thursday, March 19th, he thought he had a bad cold, and decided (I presume) to go to Belper. At any rate, he was admitted to the casual ward there about 4.30 p.m. on that day, and on Sunday, March 22nd (three days after admission), Small-Pox was diagnosed, and he was sent to the hospital. I visited the Workmen's Home, and ascertained the bed he slept in on Wednesday night, and found it one of six beds in the same room ; and on that night (the last night he was there) 62 beds were occupied in the building. I give you this history, and you will see your officers, in this case, were powerless for any other action. It is another instance of the legacies which common lodging-houses leave or confer upon the district where they are situate ; though this house is well conducted, and a good deal better than most of such institutions.

Another case was, unfortunately, that of William Henry Summer, 28 years of age, who had been acting as assistant with Mr. Thompson and myself. On the same day when the deputy-keeper of Walker's Lodging-house had Small-Pox myself and Thompson sent him to be vaccinated, which was done by Dr. Hooper. It was quite clear he had Small-Pox in his system at that time, without anybody being able to discover it. I have no doubt his vaccination on that day would very considerably modify the disease in this case. This is an instance which

shows the risk to which your officers are exposed in the discharge of their necessary work. We are not afraid, but at the same it is very difficult to carry out measures which we think lead to prevention. We are obliged to take the same precautions as other people, but I am an old hand at this business, and keep on giving confidence and assurance to everybody. We had no end of trouble about the lodging-house contacts—getting their food and other of their wants conveyed to them. Eventually Mr. Thompson succeeded in getting a man to carry out these matters satisfactorily. There really existed in Ripley a panic, and your officers were boycotted in consequence of their connection with this foul disease. It would have been a good thing if we could have obtained the assistance of one of the opponents of vaccination, so as to give us real evidence of the fearlessness which he professed to have of the dangers of Small-Pox, as his idea of the foolishness in the efficacy of vaccination as a preventive of Small-Pox.

The next case was that of John Johnson, aged 48 years. A brick-layer by trade, who had been living at Walker's Lodging-house about twelve months. He was one of the contacts of this lodging-house. When the others were released from quarantine on the 30th of March he did not resume his work, and the day afterwards he felt sick and poorly, but said nothing about it to anybody. Mr. Thompson was called in, and sent for Dr. Ashdown, who directly diagnosed Small-Pox. I saw the man at noon the same day, and found he had a mild form of the disease. He had been vaccinated in childhood, and I had no doubt that it modified the disease, though it was so long ago. He had been sleeping in a room in one of the four beds which were occupied regularly. The bed linen, etc., occupied by other lodgers was at once ordered to be boiled with disinfecting fluid in a large copper, and the bed Johnson himself occupied was destroyed. The man was removed at once to the Small-Pox Hospital, and the lodging-house and premises were thoroughly cleansed and disinfected.

About a month after a man named William Johnson, 37 years of age, had been lodging at Ripley, and one morning this man, for some reason or other, went to Alfreton; and on the same day, whilst walking up the street, sought the assistance of a police officer, who took him to a doctor at Alfreton, who found him suffering from some feverish condition, and ordered his removal to Belper Workhouse. The assistant overseer of Alfreton procured an open conveyance to convey him to Wingfield Station. While waiting for the conveyance, the man was taken to a public-house close by, when he told the landlord he was suffering from a fever. The landlord, thinking of Small-Pox, ordered him out of the house. It happened to be Whit-Tuesday, and he travelled by train from Wingfield to Belper Station; and from there, of course, walked from the station to Belper Workhouse. The doctor saw the man at the workhouse on Wednesday morning and pronounced him suffering from Small-Pox. He had never been in a bed at Alfreton.



I made inquiries, and found he worked on the Waterworks Pipe-track at Ripley, and had been sleeping a few nights at a lodging-house in the Crown Yard, Ripley. There were two other beds in the same room he slept in, but they had not been occupied for several nights, and the man slept in the room alone. Nobody knew why he went away on Whit-Tuesday morning, but he did so. Walked through Ripley to Alferton, drove from Alferton to Wingfield Station, waited about Wingfield platform for the train, where would be many passengers, being Whitsuntide holidays; travelled to Belper, walked through the town to the workhouse, all this time suffering from Small-Pox. This shows how Small-Pox can be disseminated. This man's case turned out to be the worst case in the Belper Hospital. He had delirium, and was kept in the hospital eight or nine weeks, being in great danger most of the period.

Another case of Small-Pox occurred at Bamford Street, Marehay, a married woman, named Hawkins, whose husband was employed at the Denby Pottery. The case was a very mild one, and it was quite clear that she took the disease from visiting her sister at Belper. She stayed at her sister's house five or six hours, and in a few days after that both her sister and her sister's husband were admitted to Belper Hospital with Small-Pox. Mrs. Hawkins was removed to the hospital the same day I had the information. Certain articles were destroyed, and the house thoroughly cleansed and disinfected. Although her husband was not a believer in vaccination, I prevailed upon him and his two little boys to be vaccinated, which was done. The house was very clean, and everything orderly. The articles I had destroyed were all as good as new, and of a very good quality.

#### SCARLET FEVER.

Twenty-three cases of this disease were notified during the year 1903, in the various parts of the district. Eleven of these occurred in Ripley, six at Waingroves, three at Street Lane, two at Marehay, and one at Butterley Park. As before said, one case proved fatal. The average rate of mortality is about two per cent, though it may be as high as 13 per cent. in children under one year of age. There is no doubt the type of Scarlet Fever has become completely altered, and I think it is the result of sanitation. I may state here, as a Medical Officer of Health, not only at Ripley, but elsewhere, we begin at the wrong end of the stick. We pass over what are called small nuisances, and these matters slide on, and then we build expensive hospitals, at very great cost. I don't for a moment say these nuisances *create* Scarlet Fever, because I don't believe they ever did produce a pure case of Scarlet Fever *de novo*, but what I mean is that these small nuisances form an excellent seed bed for its growth and propagation. If there is Scarlet Fever about, these are the places it picks out for a suitable soil on which to grow, and then persons who may have been over particular at their homes and habitations are brought in contact with some sufferer

at these infected places, and take the disease. Why should not the smallest nuisance reported upon be *at once* removed, by calling upon owner or occupier to do what is necessary? We should then by degrees stamp out this disease, by reason of its having no suitable place for its growth.

There is just now a strong discussion going on in the profession as to whether what is called the "peeling" or desquamative stage of the disease is really infectious or not. We know there is a certain amount of desquamation in Measles, but nobody ever talks about its being the infective stage. Is it possible that this so-called "peeling" may be a kind of throwing off of what is an absolutely dead product of the disease? Is it nature's own way of getting rid of what is an *effete* material, caused by the disease, but having no power of its own reproduction in any way? I am not able to express an opinion on the subject at all, but refer to it here because lots of intelligent men hold the opinion that it is of no importance at all. At present I shall continue to look upon it in the old-fashioned way. Of course I don't forget the very great infectiveness of discharges from the throat, ears, and nostrils, which, when not attended to, lay the foundation of renal disease, which sticks through life to the poor patient, to say nothing of Scarlatinal Muscular Rheumatism.

A girl, 7 years of age, had this disease at Greenwich. The general premises were remarkably clean and orderly, except that the ash-pit was defective. A child, 2 years and a half old, has died from Scarlet Fever at Chadwick Grave. There are four or five houses here, with no proper supply of water or drainage. A boy, 5 years of age, went to hospital from Providence Street. There are five houses here, and the drainage very defective, the slop-stone in the house being connected with the drain, not cut off. A case of Scarlet Fever occurred in Street Lane. A young woman lived as a domestic servant at Belper. She was sent home poorly, and in a day or two was removed from Street Lane to the hospital at Belper with Scarlet Fever. A little girl, 3 years of age, had a mild attack of the disease at Waingroves. The water supply here is bad, it gets muddy after heavy rainfalls, and the water gets polluted by the manure put upon the garden for purposes of cultivation. The closet is situate on the lower level of the garden, and becomes flooded after a rainfall. A little girl in the same street was taken to hospital with the disease. There are two cottages here, and both had their drains stopped up. At Bridle Lane a girl, 10 years of age, had Scarlet Fever in a very mild form. It appears she often suffered from sore throat, and I saw nothing to account for the fever. A child, 2 years old, had Scarlet Fever at Peas Hill. Here again the water supply was from a well in the garden, which became muddy and dirty after a rain storm.

At Warmwells Lane, Marehay, a little girl, 4 years old, had a mild form of Scarlet Fever. The drainage here was very bad, and was about to undergo some alterations. At Cobden Street a little girl, 3 years



old, had Scarlet Fever. At the time of my visit there was no proper water supply, the residents of the house, numbering eight persons, were drinking rain water. At Jessop Street, Waingroves, a boy, 4 years of age, had the disease. Great complaints were made about the street-grids creating bad smells, and being a thorough nuisance. I have always condemned these level street-grids and advocated vertical shaft ventilators. There is a draw-well in this back-yard, with a drain grate about a couple of yards distant. I took a sample of this water, and found it unfit for drinking purposes. At Peas Hill a girl, 9 years of age, had this disease. It was a mild case; and there was an uncovered ash-pit on the premises which required attention. Another case of Scarlet Fever was that of a boy, 13 years of age, who resided at Greenwich. He went to school at Heanor everyday, where I believe Scarlet Fever existed, and I should think that was the history of his case. The house where he lived was in excellent order, except that the drains had the old-fashioned and useless D traps. These I advise to be removed and re-placed by proper gullies. The water supply wants also laying on here, the residents drinking rain-water, stored in a cistern, which must be polluted after washing the roofs. A boy, 13 years of age, was removed to hospital from Church Street, Waingroves, with Scarlet Fever. The house and premises are newly-erected, and the water supply is from the public mains, and I saw nothing to account for the disease.

These are a few of the cases which I thought called for some detail. During the year 1901-2, the number of cases admitted to the London hospitals was 14,503, and the death rate was three per cent. The average residence in hospitals of these Scarlet Fever cases was 62 days.

#### DYPHTHERIA.

During the year 1903 there were 10 cases of this disease notified. I give the details of those which seemed to call for some special notice. I have, of course, no means of knowing whether anti-toxin was used in any of these cases. Experience has proved that this anti-toxin is almost a specific in these cases, but I am very much afraid that its cost often prevents it being used, except to those patients who can afford it. There were three deaths registered as from this disease, and singular to relate, two happened in Bamford Street, Marehay, and one died in the Belper Hospital, a boy, 7 years old. The other cases were a boy, 10 years old, out of Crown Yard, who also died in the Belper Hospital; and the other a boy, 4 years old, who died at home in Bamford Street.

It is very difficult to get at the real cause of serious disease, except that we know that foul smells from defective drainage has a great deal to do with it, but there are many other things that will cause it. I dare say a thoroughly poisoned condition of the atmosphere has a good deal to do with it, and I am inclined to think that ordinary schools have a good deal to answer for in this direction, as well as in some of the other infectious diseases. Referring again to the anti-toxin treatment, which

may be looked upon as one of the great triumphs of modern science, we find that its curative effects are in a measure governed by the period in the history of the disease in which it is used. For instance, in Diphtheria cases where it is used on the first day of the disease the mortality from Diphtheria is about five per cent.; whereas if the remedy be not given till about the fifth day, the mortality from the disease jumps up to 35 per cent. It is also an excellent prophylactic. All persons who are, or have been in contact with Diphtheria, should at once, for their own protection, have a dose of anti-toxin administered as a preventive.

A curious fact connected with this disease is, that the true Diphtheria Bacilli can, and does, remain in the patient's throat some time without producing any symptoms. It seems as though it was like some of our ordinary seeds, very hard: such as remain in the soil for a very long time before any attempt is made at germination, until the soil or its surroundings helps it to germinate. There were 6520 cases of Diphtheria admitted in the London hospitals in 1902-3, and the death rate was 11 per cent. It is evident these cases were not sent to hospital till the disease was thoroughly pronounced, hence there was the delay I have spoken of in the administration of the anti-toxin. It is a custom with some persons to await the scientific investigation of a swabbing from the diseased throat, so as to be certain they are dealing with true Diphtheria, by the finding of the real Diphtheria Bacilli. This causes delay, and the time is lost when the anti-toxin should be given. It is better not to wait for bacteriological confirmation as no harm is done; beside, though examination for the bacteria, if found is very satisfactory, yet if it be not found, and the patient exhibits all the symptoms of the disease, it by no means negatives the idea of Diphtheria. The sufferer should be isolated for at least three weeks, however well they may appear to be.

Speaking of anti-toxin, I ought to say here that it is not given to the patient in the ordinary way of medicine, but it is fluid injected by a syringe in any convenient part of the body—the arm is generally selected as being in many ways the most ready and convenient. It has much the same action as vaccination, only that it is much quicker in its action, though it has nothing to show for itself, except the very visible improvement of the suffering patient. My opinion is, that if the remedy was used at once, with no delay, no waiting—so that the patient was, so to speak, put under its influence at the same moment as the disease itself—we should not have to record any deaths from Diphtheria, pure and simple. I have no doubt a deficiency of cubic space, whether in the house or school, or any other public institution, makes persons very susceptible to the disease. If we add to these matters the want of ventilation, so that the air cannot be frequently removed—damp situations, defective drainage, and dirty surroundings, we get the principal elements in the causation of this disease.



A boy, 9 years of age, was removed to hospital with this disease, from Crown Yard, Ripley, and he died there. This yard is a wretched and dirty place. It is the back way to the Crown Inn, and to some rooms belonging to a common lodging-house. Up a corner at one end of the yard there is quite a network of closets and ash-pits, which poisons the atmosphere round about. In the cottage mentioned above the coal-house was also used as a pantry; there were no back doors, and the pantry had a window with iron bars, and a wooden shutter which had not been open for a long time, until I had it unfastened to see the dirty coal-house which formed the pantry. The house was very dirty, and it was explained to me that the coals had to be got in the house through the room they lived in. There was no history of this case, except the mother thought he had got cold at a football match. But football matches don't produce Diphtheria; but it was most likely caused by the tainted atmosphere of the surroundings of the dwelling. The boy died of the disease in the hospital. A girl, 9 years of age, had diphtheria at a house on Pentrich Road. She was isolated and nursed by her mother. The drainage here was defective.

A girl, 5 years of age, residing at Greenwich, had the disease. No history was obtainable. The house was cleanly and in excellent order. Close to this house was a nasty open ash-pit, belonging to another tenant. Another case occurred at what is known as the Barracks. A girl, 8 years of age, had a mild attack. Although this locality is not celebrated for salubrity, I saw nothing special to account for this case. Another case occurred at Bamford Street, Marehay. A boy, 7 years of age, was removed to hospital, and died of the disease in that institution. The house and premises were cleanly and satisfactory, and recently erected. It was thought that the boy had caught the disease by going to Bridlington by an excursion train. This may, or may not, have been the case. The water supply was from a well sunk on the premises, and on analysis was found to be unfit for drinking. In this case the true Diphtheria Bacilli were found by a swabbing from the throat, and sent to the Research Department at Mason College, Birmingham. Another case occurred at the upper end of the same street. A boy, 4 years of age, died at his own residence of the disease, after a few days' illness. There was no connection whatever between the two cases. Here again was a well sunk in the garden, lined with dry brick, and the soil around manured and cultivated. I have always condemned this sort of water supply. It must be polluted, more or less, though I am not able to say they cause Diphtheria.

At Warmwells Lane a girl, 10 years of age, had a mild attack of Diphtheria. There was no history of the case, except that the child had been visiting at Darley Dale. There was a very unsatisfactory draw-well on the premises. At Nuttall's Park a boy, 7 years of age, had the disease. It appeared he always had a sore throat when he had a cold, so that he would be specially susceptible to Diphtheria. The property here was in a very unsatisfactory state. Drains were untrapped, and



required proper gullies ; there was also the very nasty open midden and ash-pit. Two other houses in the same block were in the same unsatisfactory condition. Another case of Diphtheria occurred at Warmwells Lane. A little girl, 4 years of age, had the disease. There was no particular nuisance on the premises, except another of the same class of well which I have described previously, and which I condemn. They merely act as drainage for a certain area.

#### TYPHOID FEVER.

Only two cases of this disease occurred during the year 1903, and both of these were in Oxford Street, in the month of December. The first case was that of a boy, 10 years of age, who had been ill a short time previously in consequence of a slight accident which happened to him at Ripley Fair. The surroundings of the house were of the very worst description, and it will be remembered by the Council, that in my monthly report of the case, I said I couldn't give the details, as though they were plain enough to be seen, they were so complicated, and the best advice I could give was that Inspector Thompson and the owner or agent of the property should meet upon the spot and decide what was best to be done by way of remedy. The drainage and the brick paving of the back-yard were both broken up, and the other out-buildings connected with three or four other houses were in a bad condition, and used for all sorts of purposes.

The other case was of a very different character. At a very respectable and orderly house a tradesman, 29 years of age, had the disease. In this case it was impossible to trace any satisfactory history, though there seemed to be the impression that he had taken the disease at the place he had recently left, in another part of the town. There was certainly nothing to account for it on these premises in Oxford Street. The house had a properly constructed W.C. upstairs, everything was cleanly and in order, and all I could find fault with was the broken-up condition of a pan-closet floor in the back-yard. Although Typhoid Fever may be looked upon as a water-borne disease, there are many other causes of disinfection and dissemination. There is an Enteric or Typhoid Bacillus, and it gains access to the human system in a variety of ways ; in many cases persons don't cover up and protect their food sufficiently, and the house fly and dust may get deposited upon it. As a rule, wherever the domestic fly is found in and about the house, there is something attractive in the shape of dirt or filth, and after feasting upon these substances, the pantry or larder is visited, and some of the uncleanly material is deposited by the fly in or on any convenient article of food.

Then dust itself is frequently only the dried material of all sorts of filth, such as animal manure and urine, floor sweepings, vegetable and animal substances, various fungi, and not infrequently scurf from the skin, thrown off from not always well-washed individual, so that food should be not only well protected, but washed or well wiped before it is cooked. I wonder how many so-called pantry windows I see opening



out on to filthy, dirty yards, with all sorts of disgusting accumulations which persons are so reluctant to remove, even after the visits and orders of the Medical Officer of Health.

#### PURPERAL FEVER.

A young married woman, residing on Old Station Road, had the disease. The house itself was satisfactory, and there was nothing in the surroundings to account for the disease in any way. The patient was attended by a medical man, and the town nurse was assisting in the case. This is the only case which occurred during the whole year.

#### ERYSIPELAS.

The seven cases of this disease which were notified were of no public interest, and I couldn't say any of them indicated any insanitation; some were cases that recurred at intervals, others were the mere accompaniment of old and indolent ulcerated legs, and others were merely facial, and very ephemeral in duration. In places like Ripley the disease might have been left out of the Infectious Diseases Act, as it is so different to the serious cases one has seen in various populous slums in large towns.

#### TUBERCULAR DISEASES.

This class of disease is now considered infectious and preventible, and as a consequence curable, especially in those cases where correct diagnosis is made in the early stage. Here again we have hygienic measures called in requisition, such as plenty of fresh, pure air, frequently renewed, the removal of all sorts of what are often looked upon as small nuisances. A dry atmosphere—situations where can be had plenty of light and sunshine. A good supply of pure water for drinking, and for baths; ample space in all living rooms, and the utmost care in the disposal of the sputa from those suffering from the disease. Sanatoria are being erected in various parts of the country, having in view all the above advantages. I am one of those who think that these institutions ought not to be too large. However perfect may be the arrangements, my own opinion is against large numbers of patients suffering from Tubercular Disease being massed and herded together. Some folks have advocated notification and isolation. I see no objection to the former, but I think isolation couldn't be carried out without a certain amount of what might be called cruelty. Most intelligent persons who have Tubercular Disease know all about certain precautions to be taken for the protection of others, and would take every care, especially those living among their own family.

From the returns for Ripley it appears there have been ten deaths from Phthisis and three from other Tubercular Diseases. This is exactly the same number as last year, only that six were from Phthisis, and seven from the other Tubercular Diseases. There has no doubt been a great reduction in the number of deaths from this class of disease during the last year or two. Some day or other, vaccination and re-vaccination

will be compulsory, and its benefits fully admitted and recognised. Small-Pox Hospitals will then be no longer required, and some of these institutions may then be converted into institutions for the treatment of Tubercular Disease, and so save large expenditures for these special sanatoria.

#### CANCEROUS DISEASES.

The following are the deaths registered from Cancerous Diseases during 1903 :—Ripley : Male, 66 years, Cancer of the Stomach ; male, 71 years, Cancer of the Tongue ; male, 76 years, Cancer of the Rectum ; male, 46 years, Cancer of the Stomach ; male, 77 years, Cancer of the Liver ; male, 53 years, Cancer of the Neck. Marehay : Female, 51 years, Cancer of the Intestines ; male, 40 years, Cancer of the Rectum. Waingroves : Male, 54 years, Cancer of the Stomach.

#### ACCIDENTS AND INQUEST CASES.

Marehay, male, 44 years, crushed by fall of bind in colliery. Ripley, male, 23 years, found drowned in pond ; female, 40 years, suddenly from heart disease.

#### DEATHS UNCERTIFIED.

Ripley, male, 2 hours, Premature Birth ; male, 21 years, Spinal Disease ; male, 60 years, Heart Failure. Street Lane, male, 2 hours, Premature Birth.

#### DEATHS FROM MEASLES.

Ripley, male, 6 months, in May ; male, 2 years, in May.

#### DEATHS FROM SCARLET FEVER.

Male, 2 years, at Chadwick Grave, in January.

#### DEATHS FROM TUBERCULAR DISEASES.

Ripley : Female, 34 years, Phthisis ; female, 24 years, Phthisis ; male, 27 years, Phthisis ; female, 24 years, Phthisis ; female, 57 years, Phthisis ; male, 17 years, Phthisis ; male, 23 years, Phthisis ; male, 25 years, Phthisis ; female, 47 years, Phthisis ; female, 17 months, Phthisis ; female, 5 months Tabes Mesenterica ; male, 2 years, Tabes Mesenterica ; female, 15 months, Tubercular Meningitis.

#### INFANTILE MORTALITY.

The death rate of infants under one year of age still continues much *so high* in the Ripley district. In the year 1900 it was 131 per 1000 ; in 1901 it was 146 per 1000 ; in 1902 it was 109 per 1000 ; and for this year, 1903, it is 117 per 1000. The total number of births in the district for the year 1903 was 354, so that about one child in eight dies in the very first year of its existence. I cannot account for it any way, especially as there are no large factories where mothers would be employed and so neglect their children by going to work as soon as they could, and thus depriving their children of nature's own food, provided for them at the mother's breast. The Infant Mortality Death Rate for



England and Wales is 132 per 1000, but we must remember that this includes the big populous towns, where, in very many cases, infant life is not thought of much value. A good deal is just now talked about the deterioration of the human race, which, of course, is too wide a subject for me to talk about, but I do say here, that compulsory education has a good deal to answer for in this case. There are hundreds of children in poor health who are compelled to trudge long distances to a school, when they ought to be at home by the fireside. How many go long distances in wet weather and remain at school in their wet shoes and clothing, laying the foundation of chronic diseases, which make them quite unfit for the duties of either womanhood or manhood, to say nothing of cramming a half-starved child with what is called education. This, of course, is only one element of this matter, but it is an important one, because it takes place in childhood, and at the commencement of the boy or girl's career, when the elements of growth and strength are quite as important to the future as education. The deaths occurred in the following quarters of the year :—

March Quarter	-	-	-	33
June Quarter	-	-	-	35
September Quarter	-	-	-	30
December Quarter	-	-	-	40
Total				138

#### DEATHS AT THE VARIOUS AGE PERIODS.

Under 1 year of age	41	3.96	per 1000
1 and under 5 years of age	19	1.83	"
5 and under 15 years of age	4	.38	"
15 and under 25 years of age	10	.96	"
25 and under 65 years of age	28	2.70	"
65 years and upwards	36	3.47	"

Total 138

Male deaths 79, rate per 1000 7.63. Female deaths 59, rate per 1000 5.73. Total death rate from all causes, 13.33 per 1000. Total death rate for England and Wales for 1903 was 15.4 per 1000. The 41 children who died during the first year of their existence had a mean age at death of 4 months. The 60 children who died under the age of 5 years (the 41 under 1 year included) had a mean age at death of 11 months. The 36 aged persons who lived to the age of 65 years and upwards had a mean age at death of 71 years.

#### SUMMARY FOR THE YEAR 1903.

Zymotic Diseases, .65 per 1000.

Phthisis, .96 per 1000.

Other Tubercular Diseases, .96 per 1000.

Cancer, .86 per 1000.

Bronchitis, 1.83 per 1000.

Pneumonia, .28 per 1000.

Heart Disease, .57 per 1000.

The deaths under 1 year equalled 29 per cent. The aged deaths, 65 years and upwards, equalled 26 per cent.

#### BIRTHS.

The number of Births in the various parts of the district for the year 1903 are as follows :—

Localities.	Boys.	Girls.	Total.
Ripley ... ..	107	135	242
Marehay and Street Lane	19	30	49
Waingroves ...	22	17	39
The Hartshays ...	8	10	18
Butterley Park ...	4	2	6
Total	160	194	354

Total birth rate 34.20 per 1000. Birth rate for England and Wales, 28.4 per 1000. Male birth rate for Ripley in 1903, 15.45 per 1000. Female birth rate for Ripley in 1903, 18.74 per 1000.

#### DEATHS.

The number of Deaths in the various localities of the district for the year 1903 are as follows :—

Localities.	Males.	Females.	Total.
Ripley ... ..	60	41	101
Marehay and Street Lane	7	12	19
Waingroves ...	8	3	11
The Hartshays ...	3	3	6
Butterley Park ...	1	0	1
Total	79	59	138

The total death rate for Ripley, 1903, 13.33 per 1000.

The death rate for England and Wales, 1903, 15.4 per 1000.

Male death rate for Ripley, 1903, 7.63 per 1000.

Female death rate for Ripley, 1903, 5.79 per 1000.

#### GENERAL INSPECTION.

This is, of course, done regularly. I personally visit every house where infectious disease has been notified, and give instructions and thoroughly examine the premises in order to ascertain, if possible, the cause of the disease. Inspector Thompson generally accompanies me, and, of course, is cognisant of my suggestions upon the matter. There has only been one occasion for a special visit, and this was at a place known as Bennett's-row, on the Cromford Road, Ripley. I met some members of the Council at this spot, where the following condition of things existed. There is here in this yard an area of about 1474 square yards, and in this space there were 10 houses with a population



of 49 persons, and at the bottom of the gardens were kept 15 pigs and six horses, belonging to the various tenants. The closets for these houses adjoined the pig-styes, they had open ash-pits, and the floors of the pig-styes were not properly constructed or drained, and I felt as your Medical Officer of Health to condemn the whole arrangement. The Council eventually allowed the cottagers to keep the pigs until they were fit for market. I have not visited the place since, but propose to do so very soon. There seems to be no definite distance for keeping pigs from the dwellings in your bye-laws, but they can be dealt with under Section 91 of the Public Health Act. If there was a definite distance fixed it would be more agreeable to your officers, and save them from being unjustly charged with interfering with the poor man's pig. As far as myself is concerned, nothing could be farther from the truth, as I have always been reluctant to interfere only when it has been absolutely necessary, and there is one thing certain, none of us would personally sanction a pig nuisance near our own domicile.

#### ANTHRAX.

Under the Contagious Diseases Animals' Act, the Superintendent of the County Constabulary is compelled to send the Medical Officer of Health notice of any case of Anthrax that occurs in his district. This is doubtless for the Medical Officer of Health to caution everybody of the danger there is in handling the beast affected with the disease, or, as is mostly the case, has died of the same. In June last two stirks were suddenly attacked and died from Anthrax at Butterley Farm, and I came over and saw the preparations made to cremate the animals. It is the duty of County Constabulary to dispose of the animals.

#### SCHOOL CLOSING.

The Butterley Hill Schools were closed for one month in July and August, in consequence of an epidemic of Measles. I hear that the Education Department have decided not to continue the grant in such cases, and I think a decided mistake has been made, as it will make managers very reluctant to close schools; and it seemed the only effectual thing to do in epidemics of Scarlet Fever, Measles, Whooping Cough, and Mumps.

#### PUBLIC WORKS.

Street Lane, Peas Hill, and Waingroves are still without any system of sewerage, and all very badly require it. I often have complaints from the cottagers at the top of Peas Hill, and I have had the same thing from what is called the Waingroves and Peas Hill Ratepayers' Association.

#### WATER SUPPLY.

All the houses in Street Lane are not yet attached to the public main, and I am quite sure it is necessary. Some new streets on the Cromford and Heage Road also require it, and Waingroves and Peas

Hill particularly so. I must mention here my opinion that the Ripley public water supply, coming as it does from the coal measures, ought to pass through a properly constructed filter-bed before it is distributed to the consumers. I am constantly having complaints about its quality.

#### SCAVENGING.

Now this is done by your own officers and men it is being gradually better carried out. One great drawback is the depth and narrowness of most of the ash-pits—they must be positively a nuisance to the workmen who have to empty their contents. Portable ash-bins or boxes are much required, and would very much lessen the expense. The back-yards are in many cases in a wretched state—loosely jointed common bricks, which are very porous, and will hold a large quantity of slops and other liquid matter for a very long time, in fact, they can hardly ever said to be dry. Owners of property should be made to alter this state of things. The excellent tip or depot for the ashes and house refuse ought to save you from the expense of a refuse destructor for a very considerable period.

#### NEWLY-ERECTED HOUSES.

I think the Council, with their ample water supply, ought to compel all new houses to construct W.C., instead of the ordinary closet, pan, or otherwise. Cow sheds, dairies, and slaughter-houses are dealt with each on their own merits as may be necessary, and may be considered in fairly good condition.

The tables which follow concludes my 30th Report to you. I have seen many changes since my first connection with you as Medical Officer of Health, in the old Local Board days, and when part of the district was in the hands of the Belper Rural Authority. I dare say I have not always been in thorough agreement with the Council, but I have always done my duty, and tried to carry out my work without creating anything like a revolution in the habits of the people. I have always received kindness from the Chairman and Clerk, and I must here again congratulate the Council on the efficiency of Mr. Thompson. I have attached Mr. Thompson's Report after the health tables; and I hope my 30 years' connection with Ripley Council, etc., will be a guarantee for an extension of your confidence in the future.

I remain, Gentlemen,

Yours faithfully,

**EDWARD GAYLOR,**

Medical Officer of Health,

Ripley Urban,

Alfreton Urban, and

Belper Rural District Councils.

Belper, Feb. 26th, 1904.



TABLE I.

## RIPLEY URBAN DISTRICT.

Vital Statistics of Whole District during 1903 and previous years.

Year.	Population Estimated to Middle of each Year.	Births.		Deaths under One Year of Age.		Deaths at all Ages.	
		No.	Rate.	No.	Rate per 1000 Births Registered.	No.	Rate per 1000
1895	9172	370	40.34	55	148.64	158	17.22
1896	9398	349	37.13	43	123.20	143	15.21
1897	9596	359	37.41	58	161.65	150	15.63
1898	9774	334	34.17	51	152.69	157	16.06
1899	10052	388	38.59	43	110.82	141	14.02
1900	10348	327	31.60	43	131.49	150	14.49
1901	10120	368	36.36	54	146.73	141	13.93
1902	10250	375	36.58	41	109.33	114	11.12
Averages for years 1895 to 1902	9839	359	36.52	48	135.57	144	14.71
1903	10350	354	34.20	41	117.14	138	13.33

## CENSUS 1901.

Area of District in Acres (exclusive of area covered by water) 2815.

Total Population at all Ages, 10,111.

Number of Inhabited Houses, 2125.

Average Number of Persons per House, 4.76.

TABLE II.

## RIPLEY URBAN DISTRICT.

Cases of Infectious Diseases Notified during the Year 1903.

Notifiable Diseases.	At all Ages.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 and upwards
Small-pox .....	6		1			5	
Diphtheria .....	10		2	8			
Erysipelas ... ..	7			2		4	1
Scarlet Fever .....	23		6	15	2		
Enteric Fever.....	2			1		1	
Puerperal Fever ...	1				1		
Totals.....	49		9	26	3	10	1

Total Cases Notified in each Locality, 1903.

Locality.	At all Ages.	Small-pox.	Diphtheria.	Erysipelas.	Scarlet Fever.	Enteric Fever.	Puerperal Fever.
Ripley .....	30	5	6	5	11	2	1
Butterley Park ...	1				1		
Street Lane .....	3				3		
Waingroves .....	7			1	6		
Marehay .....	8	1	4	1	2		
	49	6	10	7	23	2	1



TABLE III.

Cases of Infectious Disease Removed to Hospital, 1903.

Locality.	At all Ages.	Small-pox.	Diphtheria.	Scarlet Fever.
Bipley .....	8	5	1	2
Street Lane .....	1			1
Waingroves .....	4			4
Marehay .....	2	1	1	
	15	6	2	7

A male, 10 years of age, died in hospital of diphtheria in January, 1903.

A male, 7 years of age, died in hospital of diphtheria in August, 1903.

Ages of Patients Removed to Hospital, 1903.

Diseases.	At all Ages.	Under 1 Year.	1 to 5 Years.	5 to 15 Years.	15 to 25 Years.	25 to 65 Years.	65 and upwards
Small-pox .....	6		1			5	
Diphtheria .....	2			2			
Scarlet Fever .....	7			6	1		
	15		1	8	1	5	

TABLE IV.

## RIPLEY URBAN DISTRICT.

Causes of, and Ages at, Death during Year 1903.

## DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.

Causes of Death.	All Ages	Under 1 Year.	1 and under 5 Years.	5 and under 15 Years	15 and under 25 Years	25 and under 65 Years	65 and upwards
Measles .....	2	1	1				
Scarlet Fever ...	1		1				
Diphtheria and Membranous							
Croup .....	3		1	2			
Diarrhoea.....	1	1					
Enteritis .....	3		1				2
Phthisis .....	10		1		4	5	
Other Tubercular Diseases .....	3	1	2				
Cancer, Malignant Disease...	9					4	5
Bronchitis .....	19	8	4				7
Pneumonia .....	3		1			2	
Premature Birth	9	9					
Diseases & Acci- dents of Partu- rition .....	1					1	
Heart Diseases...	6					2	4
Accidents.....	1					1	
Uncertified .....	1					1	
All other causes	66	21	7	2	6	12	18
All causes...	138	41	19	4	10	28	36



The following has been sent to the Secretary of State, Home Department, in accordance with Section 132 of the Factory and Workshops' Act, 1901 :—

## RIPLEY URBAN DISTRICT COUNCIL.

### FACTORY AND WORKSHOPS' ACT.

The work of inspection of the above is now become the duty of the Authority, and has naturally caused an amount of work to fall upon the officials. In this district a list of all Workshops and Factories has been made, and a systematic inspection is now being carried out; and I am glad to report that, generally speaking, the condition of things has been satisfactory. The buildings have been kept clean and tidy, and the air space has been sufficient, also the ventilation; in some instances the drainage has been improved. It is sometimes difficult for an official to find out every place where home work in insanitary places is being carried on, and the only thing that can be done is to keep a careful watch; but in this district I do not think that anything of a very serious nature has occurred. Reports are always attended to at once, and no delay has been allowed to occur when improvements of a sanitary nature have been wanting.

DR. GAYLOR, Medical Officer of Health.

C. W. THOMPSON, Sanitary Inspector.

Dear Sir,—This year, as in the previous year, much work has been done, such as the disinfection of houses, etc., and of the town generally. This disinfection is done in a systematic form, and has been, I believe, to the great benefit to the health of the town. We still continue to empty ash-pits on the block system, and they have been attended to regularly. At the same time I must call attention to the fact, that sometime before long more manual and team labour will be required to properly carry out this work. This is, of course, by reason of the ever-increasing population, and the number of new houses which are being built. The emptying of the pails is, I am sorry to say, carried out in Ripley in a very primitive fashion; instead of a properly constructed covered van, and a separate set of clean and disinfected pails being substituted when the full ones are taken away, the work is done simply by the full pails being emptied into an open tumbler cart and then carted round various streets of the town until the tumbler is full. This is a so-called pail system, but it is far from being sanitary.

The roads and streets of the town have been kept regularly scavenged, but the past year has been a most difficult one for the work, on account of the very heavy and continuous rainfall. The sewage of the town and the management of the Sewage Farms has, I think, been dealt with as satisfactorily as possible, under the somewhat difficult circumstances which have been attendant on this branch of sanitation.

I might mention that on our Northern Sewage Farm special efforts have been made to get a better effluent, new troughs having been made so as to be able to distribute the sewage more equally over the land. Regular inspections have been made to all lodging-houses, slaughter-houses, and workshops. This has been most necessary this year on account of the epidemic of Small-Pox which has visited the country. With reference to Water Supply, a great many new services have been made on to both new and old houses from the town mains, both in the Central Ward, and also in the outlying wards. I may mention Street Lane in particular, a number of houses in this district having had services laid on this year.

In conclusion, there is one matter which I think should have the most serious consideration of the Sanitary Committee, and that is to give every inducement and to use every endeavour to have the town as soon, and as much as possible, put on the water closet system, and to urge people building new houses to provide them with bath-rooms.

Yours faithfully,

C. W. THOMPSON,

Surveyor and Inspector.

To DR. GAYLOR,

Medical Officer of Health.

RIPLEY URBAN DISTRICT COUNCIL.

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INSPECTOR'S REPORT.

List of Informal Notices served by Inspector :—

No Disconnection of Waste Pipe	-	16
Defective Traps, Inlets and Drains	-	22
Drains Blocked up, or Obstructed	-	40
Insanitary Privies and Ash-pits	-	38
Insufficient Closet Accommodation	-	5
Conversion of Privies into Water Closets		6
Defective Water Closets	-	3
Surface Courts and Yards	-	16
Disinfection of Urinals	-	2
Water Supplies	-	69
Offensive Accumulations	-	20
Animals improperly kept	-	15
Pig-styes	-	22
Overcrowding	-	3
Foul condition of Houses	-	6

Of these 283 cases requiring notices, the legal notices of the Authority numbered 58, and the various nuisances abated were 269.



Informal Notices to Repair	-	-	12
Number of Houses Repaired	-	-	9
Houses Disinfected	-	-	30
Inspections of Work in Progress	-	-	48
Inspection of Dairies and Cow-sheds	-	-	26
Bakehouses Inspected	-	-	4
Slaughter-houses on Register	-	-	19
Inspection of Slaughter-houses	-	-	24
Offensive Trades	-	-	3
Common Lodging-houses	-	-	3
Inspections of the same	-	-	32
Workshops on Register	-	-	15
Inspections of same	-	-	16

C. W. THOMPSON,

Surveyor and Inspector.

December 21st, 1903.

